REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. Election

The applicants acknowledge the withdrawal of claims 2, 3, 5, 7, 9, 11, 12, 14, 21, 22, 25, and 27-73 from further consideration.

2. In the claims

As shown in the foregoing AMENDMENT TO THE CLAIMS, the claims have been amended to more clearly point out the subject matter for which protection is sought.

Claim 1 is amended to incorporate the subject matter of previously presented claim 4. It is respectfully submitted that no new matter is added by way of the amendment since the amendment merely merges the subject matter of previously presented claims.

Claim 5 is amended to correct a minor informality.

Claims 6 and 23 are amended to be consistent with amended claim 1 in order to avoid a double inclusion.

Claims 8, 10, 12, 13, 15-20, 24, and 26 are left unchanged and claims 2, 3, 5, 7, 9, 11, 12, 14, 21, 22, 25, and 27-73 are withdrawn from further consideration.

Entry of the AMENDMENT TO THE CLAIMS is respectfully requested in the next Office communication.

3. Rejection of claims 1, 4, 6, 8, 10, 12, 13, 15, 16, 18-20, 24, and 26 under 35 U.S.C. § 102(b) as being anticipated by European Patent Application no. EP 1 048 258 A2 (*Tarutani et al.*)

Reconsideration of this rejection is respectfully requested, in view of the amendment to claim 1, on the basis that the *Tarutani* publication fails to disclose each

and every recited element of amended claim 1. The remaining claims depend from claim 1, and are therefore patentable as containing all of the recited elements of claim 1, as well as for their respective recited features.

In review, the embodiment as defined in claim 1 is directed to an electric blower including an electric motor including a stator and a rotor; an impeller being rotated by the electric motor; an air guide having a plurality of guide blades around the impeller; and a casing enclosing the impeller and the air guide, wherein the casing is provided with a number of exhaust openings through which a part of an air stream suctioned by the impeller is discharged, and a circumferential length of each of the exhaust openings is substantially identical to a circumferential distance between outer peripheral ends of adjacent guide blades. Further, the embodiment of amended claim 1 requires that the bottom surfaces of outer peripheral end portions of volute chambers are located between lower edges and upper edges of the exhaust openings, each of the volute chambers being an air passageway formed by two neighboring guide blades.

Since the bottom surfaces of the outer peripheral end portions of the volute chambers are set to be located between the lower edges and upper edges of the exhaust openings, the air stream from the impeller is exhausted through the exhaust openings without colliding with the casing. Accordingly, the blowing efficiency of the electric blower of the claimed embodiment can be increased and at the same time noise thereof can be reduced.

Turning to MPEP §2131, to anticipate a claim, the reference must teach every element of the claim.

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v.*

Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Here, the *Tarutani* publication discloses an electric blower and a vacuum cleaning device using the same, but fails to disclose bottom surfaces of outer peripheral end portions of volute chambers are located between lower edges and upper edges of the exhaust openings, each of the volute chambers being an air passageway formed by two neighboring guide blades, as required by amended claim 1.

The Office action asserts on page 3 that the features of previously presented claim 4, which are now incorporated into amended claim 1 (the above underlined elements) are disclosed in Fig. 6 of the *Tarutani* publication. In particular, the action refers to blades 72 being located between lower and upper edges of exhaust openings. Upon review, however, it is clear that the *Tarutani* publication does not in fact disclose bottom surfaces of outer peripheral end portions of volute chambers are located between lower edges and upper edges of the exhaust openings, each of the volute chambers being an air passageway formed by two neighboring guide blades, as required by amended claim 1.

In the *Tarutani* publication, volute chambers are formed by air passages between the volute ribs 71 (paragraphs [0028], [0035]). The air passes through the volute ribs 71 until it comes up against the inner surface of the outer perimeter section of the fan cover 65, where it is then redirected to guide ribs 72 (paragraph [0035]). As can clearly be seen in Fig. 6, and as just described, a bottom portion of the volute chambers formed between volute ribs 71 is positioned above the exhaust openings 65a so that the exhaust air impinges upon the inner surface of the outer perimeter section of the fan cover 65 to be redirected to the guide ribs 72. Thus, the bottom portions of the volute chambers are clearly not located between lower edges and upper edges of the exhaust openings, as required by amended claim 1.

In view of the above discussion, guide ribs 72 do not form volute chambers, but rather volute ribs 71 form the volute chambers. The exhaust openings 65a are formed corresponding to the guide ribs 72, and the upper edged of the exhaust openings 65a is clearly positioned below the bottom of the outer peripheral portion of the volute chambers defined between volute ribs 71. This configuration allows a portion of the exhaust air to be discharged through the exhaust openings.

As further shown in Fig. 6 of the *Tarutani* publication, the guide ribs 72 simply guide a remaining portion of the exhaust air into a bracket 55 for cooling a motor drive section 53. Accordingly, the guide ribs 72 function to guide the remaining portion of the exhaust air to the inside of the electric blower.

In contrast, the claimed embodiment requires the volute chambers to be an air passageway formed by two neighboring guide blades, and the guide blades are positioned around the impeller for discharging an air stream. The volute chambers are located between the impeller and the exhaust openings, so that the volute chamber is the air passage for guiding the air stream to the outside. Therefore, it is clear that, in the *Tarutani* publication, a volute chamber is formed by neighboring volute ribs 71 (paragraph [0035]). In contrast to the claimed embodiment, Fig. 6 of the *Tarutani* publication discloses that the volute chamber (a portion between two volute ribs 71) has a bottom surface which is located above an upper edge of an exhaust opening 65a.

Consequently, the *Tarutani* publication does not disclose that the bottom surface of the outer peripheral end portion of volute chamber is located between the lower edge and the upper edge of the exhaust opening, as required by amended claim 1. Therefore, the configuration of the *Tarutani* publication is different from the claimed embodiment and does not have the same effect of increasing the blowing efficiency and reducing noise as the embodiment of amended claim 1.

Accordingly, since the *Tarutani* publication fails to disclose bottom surfaces of outer peripheral end portions of volute chambers are located between lower edges and upper edges of the exhaust openings, each of the volute chambers being an air

passageway formed by two neighboring guide blades, as required by amended claim 1, withdrawal of this rejection is respectfully requested.

As mentioned above, applicants submit that independent claim 1 is patentable and therefore, claims 6, 8, 10, 12, 13, 15, 16, 18-20, 24, and 26, which depend from claim 1, are also considered to be patentable as containing all of the elements of claim 1, as well as for their respective recited features.

Further, with respect to claim 19, the electric blower as defined in claim 19 requires that each of the guide blades is located at about a center of a circumferential width of an exhaust opening. By such a configuration, high frequency sounds or noises, which tend to be increased when the air streams are directly discharged through first exhaust openings, can be reduced or eliminated.

In contrast to this configuration, the *Tarutani* publication discloses that the volute ribs 71 are located substantially at side ends of a circumferential width of the exhaust opening 65a (see Fig. 7), and not at about a center of a circumferential width of an exhaust opening.

Accordingly, since the *Tarutani* publication fails to disclose that each of the guide blades is located at about a center of a circumferential width of an exhaust opening, as required by claim 19, withdrawal of this rejection is respectfully requested.

Further still, with respect to claim 20, the electric blower as defined in claim 20 requires ribs provided on an outer surface of the casing above the respective exhaust openings. However, as shown in Fig. 27(c), the *Tarutani* publication discloses that the pieces 65p are formed by bending inward the edge extending along the perimeter of the exhaust opening 65a (paragraph [0093]). Accordingly, the *Tarutani* publication discloses that the pieces 65p are provided on the inner surface of the fan cover 65, and not on an outer surface of the casing above the respective exhaust openings, as required by claim 20. Accordingly, withdrawal of this rejection is respectfully requested.

Even further still, with respect to claim 26, he electric blower as defined in claim 26 requires a motor cover covering the exhaust openings, the motor cover being open at a downstream side of the part of the air stream. However, the electric motor chamber 6 as shown in the *Tarutani* publication functions to contain the electric blower 5, and therefore the electric motor chamber of the *Tarutani* publication is different from the motor cover of the present invention.

Thus, in view of the above discussion and since the *Tarutani* publication fails to disclose every element of amended claim 1, from which the remaining claims depend, withdrawal of this rejection is respectfully requested.

4. Rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application no. EP 1 048 258 A2 (*Tarutani et al.*)

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 17.

Turning to MPEP § 2143.03, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981,180 USPQ 580(CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F .2D 1382, 1385, 165 USPQ 494,496(CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F .2d 1071, 5 USPQ2d 1596(Fed. Cir.1998).

In view MPEP § 2143.03, and in view of the discussion above with respect to amended claim 1, the rejection fails to establish a *prima facie* case of obviousness with respect to claim 17, which depends from amended claim 1, on the basis that the *Tarutani* publication fails to disclose all of the elements of amended claim 1, as discussed above, and further fails to disclose all of the elements of pending claim 17.

The electric blower as defined in claim 17 requires that a total area S1 of the exhaust openings is set to be 40 mm^2 or greater. As shown in Fig. 8 of the pending application, the efficiency of the electric blower is saturated when the total area of the

exhaust openings is equal to or greater than 40 mm^2. The *Tarutani* publication does not disclose or suggest this feature of claim 17.

The Office action asserts on page 6 that the device of claim 17 would not perform differently from the device of the *Tarutani* publication. In view of the efficiency graph in Fig. 8 of the pending application, it is clear that the device of claim 17 functions substantially at its maximum efficiency. There is simply no teaching in the *Tarutani* publication that suggests that the blower of the *Tarutani* publication functions at the same efficiency or even at its maximum efficiency. Further, there is absolutely no suggestion that providing the total area S1 of the exhaust openings of the *Tarutani* publication to be 40 mm^2 or greater will provide substantially the maximum efficiency for the blower of the *Tarutani* publication.

Accordingly, since the *Tarutani* publication fails to disclose every feature of pending claim 17, and there is no suggestion to provide the total area S1 of the exhaust openings of the *Tarutani* publication to be 40 mm^2 or greater, a *prima facie* case of obviousness cannot be maintained, and withdrawal of this rejection is respectfully requested.

5. Rejection of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application no. EP 1 048 258 A2 (*Tarutani et al.*) in view U.S. patent no. 6,166,462 (*Finkenbinder et al.*)

Reconsideration of this rejection is respectfully requested on the basis that the *Finkenbinder* patent fails to provide for the deficiencies of the *Tarutani* publication, as discussed in detail above with respect to claim 1, from which claim 23 depends.

Accordingly, withdrawal of this rejection is respectfully requested.

6. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,

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